

REMARKS/ARGUMENTS

The Office Action mailed on July 20, 2005, has been reviewed and the comments of the Patent and Trademark Office have been considered. Prior to this paper, claims 1-14 were pending in the present application. By this paper, Applicants do not cancel or add any claims. Therefore, claims 1-14 are now pending in the present application.

Applicants respectfully submit that the present application is now in condition for allowance for the reasons that follow.

Indication of Allowable Subject Matter

Applicants thank Examiner Jenkins for the indication that claims 1-7 are allowed.

Claim Rejections Under 35 U.S.C. §102(b)

In the Office Action, claims 8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyashita et al. U.S. 4,737,332.

Applicants respectfully traverse the rejection as to the claims above, and submit that these claims are allowable for at least the following reasons.

Applicants rely on MPEP § 2143, which states that:

to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

It is respectfully submitted that the first, second and third criteria of MPEP § 2143 have not been met in the Office Action.

The Cited Reference Does Not Suggest All Claim Recitations

The Office Action correctly recognizes that Miyashita et al. discloses a method of binder extraction in a supercritical carbon dioxide atmosphere.

Matsushita et al. does not teach a method of sintering a green body whereas the present invention does.

Lack of Suggestion or Motivation to Modify the Reference

Miyashita et al. overcomes the binder extraction problems of the prior art, e.g. heat stresses, sporadic drying, crevices, cracks or strain (col. 3, lines 59-62), by operating at a temperature well below the temperatures at which these problems occur.

Miyashita et al. views the absence of heating as an essential feature of his invention (col. 4, lines 37-39 and col. 4, lines 55-57). Conducting his binder extraction method in a supercritical liquid carbon dioxide atmosphere (col. 8, lines 1-2) allows Miyashita et al. to achieve this goal, since the critical temperature of carbon dioxide is 31.1°C (col. 4, lines 21-22). In all the examples given by Miyashita et al., binder extraction is performed at 40°C.

At such low temperatures, which are even below typical molding temperatures, green body shape distortion by gravitational sag or friction over supporting hardware is virtually nonexistent.

Consequently, Miyashita et al. does not address the problems of green body shape distortion by gravitational sag or friction over supporting hardware during binder

extraction and sintering and neither has any motivation to do so since he does not face these problems.

Furthermore, since Miyashita et al. is able to extract his binder at a low temperature in a supercritical carbon dioxide environment, he also has no motivation, nor makes any suggestion to using supercritical xenon, which would render his method less economical.

Lack of a Reasonable Expectation of Success

There is no evidence in the reference, and none identified in the Office Action, that one of ordinary skill in the art would have a reasonable expectation of success in achieving Applicants' invention by following the teachings of Miyashita et al.

Miyashita et al. does not work in a state of weightlessness achievable through the use of supercritical xenon and high pressure as taught in the present invention.

Consequently, if a person of ordinary skill in the art were to apply the teachings of Miyashita et al. towards binder extraction and sintering of green bodies, he would inherently not reach the state of weightlessness essential to avoid gravitational sag or shape distortion by friction over supporting hardware and, therefore, be exposed to these problems.

CONCLUSION

For the above reasons, Miyashita et al would not have anticipated Applicants' invention.

Applicants believe that the present application is now in condition for allowance, and favorable reconsideration is requested.



Respectfully submitted this 7th day of October, 2005 by

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Certificate of Mailing

The undersigned, Romain Louis BILLIET, first named inventor in Application No. 10/720,613, hereby certifies that this correspondence will be deposited with the Malaysian Postal Services (Pos Malaysia) as Express Mail Service (EMS) addressed to 'Mail Stop NON-FEE AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, USA, on Friday, October 7, 2005

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